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Subsidiary Innovation: A phenomenon under threat?

Abstract-

Rarely are the linkages between theory and practice as apparent as those between the strategic renewal literature and current structural transformations being realised within many multinationals (MNCs). Strategic renewal promotes the transformation of capabilities, structural models and organisational reform. Similarly, we can see similarly how many MNC organisations, cognizant of both global and technological change are championing these key tenets in choosing a new path, and shifting from networks of mini-replica subsidiaries towards more task-driven, integrated systems of activities. The advance of this transactional approach to operations is driven by an aim to create greater efficiencies, eliminate duplication of efforts and the overarching view that within the network there should be *one place for everything*.

Many subsidiaries, as the recipients of change and in a state of transition, are now adopting more narrowly defined, specialised implementer roles, whilst also being exposed to greater monitoring and control by the headquarters. Surprisingly, despite a wide range of literature and research attesting to the value of subsidiary based contributions including learning, initiative creation and as a catalyst for innovation these fundamental changes have yet to be scrutinized in light of the potentially negative implications for the *organisations* ability to adapt, survive and innovate. In this paper we argue that reforms at the capability and structural level not only undermine subsidiary scope to contribute and innovate but may also signal an early warning sign of competence destroying change in the MNC. We trace the foundations of subsidiary based initiatives and innovations before addressing some prominent questions relating to organisational reform, strategic renewal and subsidiary based innovation with suggestions for future research.

1. Introduction

The survival of the firm is contingent upon on an ability to adapt, shift and innovate (Hitt et al. 1997; Teece & Pisano, 1994, Verona and Ravasi, 2003). Within the multinational this responsibility has been steadily shifting; no longer resting solely on the parent as the sole provider of knowledge and initiatives, but increasingly encompassing the salient roles and capabilities developed within subsidiary sites. The subsidiary, once conceptualised as a locally based, exploitation driven entity, has since become the subject of ‘profound evolution in thinking about multinational corporations’ as researchers recognised the shift from owner-specific advantages developed at headquarters to understanding the new and increasingly prominent roles played by subsidiaries (Birkinshaw and Hood, 1998: 773). The realisation that resources and competencies are spread, typically unevenly, throughout the MNC network (Bartlett and Ghoshal, 1990; Szulanski, 1996; Tsai, 2001; Zaheer and Bell, 2005) indicates that some subsidiaries are better positioned to leverage both local knowledge and pursue opportunities. This evolution in our thinking is particularly evident in conceptualisations of the subsidiary as a provider of global innovative solutions (Ghoshal and Bartlett, 1988; Gupta and Govindarajan, 1991) and in studies tracing how the dispersal of knowledge sources and

competencies within the MNC impacts upon innovation creation at the organisational level (Cantwell, 1994; Pearce, 1999; Williams, 2009). Further, a wide array of studies attests to the *scope* of subsidiary based contribution including; subsidiary specific advantage (Rugman and Verbeke, 2001) initiative creation (Birkinshaw 1997; Ambos, Andersson and Birkinshaw, 2010; Delaney, 2000) and reverse knowledge flows (Ambos, Ambos and Schlegelmilch, 2006).

In this paper we highlight how current research has extended our understanding of the potential *scope* of subsidiary based innovations yet fails to address how substantial structural changes in the modern MNC may now undermine traditional subsidiary efforts to pursue independent and/or collaborative initiatives. In other words, we bring to light the potential *barriers* that subsidiary units now face in creating initiatives and innovations and suggest that recent transformations in the structure and configuration of the modern MNC may in fact hinder competence development.

The rest of the paper is organized as follows: section (2) traces enabling factors conducive to subsidiary based innovation including; autonomy, embeddedness, initiative taking, opportunity recognition and entrepreneurship. Section (3), with the aid of a model, maps how these enabling factors fit within both the structural context of the wider organisation and the behavioural context inherent and idiosyncratic to the subsidiary itself. In capturing the *boundaries* within which subsidiaries must now operate section (4) highlights how changes at a macro level are now undermining subsidiary scope to pursue the factors conducive to an innovative output and exploration. The subsequent section (5) includes a discussion of some prominent questions relating to subsidiary based innovation research with suggestions for future research and implications. Finally, section (6) contains a brief conclusion.

2. Subsidiary based Innovation within a shifting MNC Structure

It is often said that revolution can be better analysed as a series of incremental and evolutionary processes (Huizingh, 2011). Research and theory on subsidiary based innovations is an exemplar case in point. The manner in which we conceptualise both the MNC and subsidiary roles within that structure has changed significantly over the last number of decades. In the late 1970's and 1980's international business research largely ignored the value of (or potential for) subsidiary driven innovation, choosing to focus instead on aspects of the agency problem and parent-subsidiary relationships. The dominant logic of the time not only assumed subsidiaries were centrally controlled and co-ordinated (Doz and Prahalad, 1981) but that they were also dependent, subordinate and typically limited to local sales and manufacturing (Birkinshaw and Hood, 1998).

Hedlund's (1986) assertion that aspects of the then modern MNC were not fully grasped resulted in his advancement of the 'hypermodern MNC' as a heterarchical structure. Maintaining that organisations not only need profitable, stable and predictive revenue creating units, but must also demonstrate a willingness to undertake risk and to experiment Hedlund outlined how 'the MNC is a crucial arena for such institutional innovation... uniquely powered to address some of the most urgent problems of a global scale' (1986: 32).

In turn, the inter-organizational, *federative* model of the MNC which followed, captures the complexities of subsidiary autonomy and local embeddedness; firmly positioning the subsidiary as a significant source of innovation for the collective organisation (Andersson, Forsgren and Holm, 2002, 2007; Bartlett and Ghoshal, 1989; Ghoshal and Bartlett, 1988, 1990).

Two central characteristics underpin the federative structure. Firstly, the subsidiary has access to network resources which it can use to develop its competitive capability in its own market. Secondly, ‘through the transfer of these capabilities from the focused subsidiary to other MNC units, the competence of the MNC as a whole will be upgraded’ (Andersson, Forsgren and Holm, 2002: 979). Reflecting both its appeal to theory and applicability to practice several branches of literature emerged, all attesting to the potential of the subsidiary as a catalyst for competence creation and innovation within the MNC, albeit doing so via a number of different lenses. The most noted of these streams include the subsidiary entrepreneurship, subsidiary initiative, and subsidiary embeddedness perspectives (Birkinshaw, 1997; Lee and Williams, 2007). As innovation in the subsidiary builds upon the concepts inherent in each of these branches of literature we now address how these complimentary perspectives contribute to both a more holistic understanding of subsidiary based innovation.

2.1 The embeddedness component, collaboration & innovation

Subsidiary embeddedness as ‘the canvas within which subsidiary strategy take places’ (Garcia-Pont et al., 2009: 182) captures the closeness of relationships, the intensity of information exchange and the extent to which resources between parties are tied (Andersson, Forsgren and Holm, 2001). In viewing the subsidiaries environment as a network of relationships the extent to which interdependencies between the subsidiary and its counterparts are assumed will be reflected in its relative degree of embeddedness (Andersson and Forsgren, 1996). The degree to which a subsidiary is embedded both internally within the organisation, and externally within its local network is also found to have a significant impact on its capacity to innovate and to strengthen its competitive position (Andersson et al. 2002; Cantwell and Mudambi, 2005; Ciabuschi et al. 2011; Figuerido, 2011). Whilst autonomy and headquarter attention are also acute indicators of innovative potential (Ambos et al., 2010) a discussion of subsidiary based innovation must arguably begin with accessing subsidiary embeddedness as a critical component.

As subsidiaries are embedded in relationships with actors both internal and external to the organisation the opportunity to leverage local ties, and knowledge, which is often unobtainable to the parent, or ‘invisible’ becomes increasingly apparent (Yamin and Sinkovics, 2007). These myriads of connections and relationships then provide the subsidiary with a unique platform to contribute to the knowledge creation processes that are conducive to innovation-developing activities (Ciabuschi et al., 2011). Should this knowledge be valuable and capable of being diffused back to the parent via reverse knowledge flows it may also allow the subsidiary to exert increased influence within the corporate structure (Ambos et al., 2006; Mudambi and Navarra, 2004; Yang et al., 2008). The value of assimilated

knowledge can then be realized in affording headquarters the opportunity to combine and utilize resources from different parts of the corporate system (Andersson et al., 2001).

As local knowledge may be ‘sticky’ or context specific (Szulanski, 1996) the subsidiary must act as much more than a mere conduit for knowledge and play an integral role in the diffusion and dissemination of this new knowledge throughout the network. As demonstrated by the absorptive capacity literature the ability to recognise the value of new, external knowledge and to then assimilate this knowledge is conducive to both learning and at a wider level to organisational innovation (Cohen and Levinthal, 1990; Lane and Lubatkin, 1998; Tsai, 2001). As Tsai (2001: 996) outlines: ‘knowledge transfer among organizational units provides opportunities for mutual learning and inter-unit cooperation that stimulate the creation of new knowledge and, at the same time, contribute to organizational units’ ability to innovate’. Thus in order to exploit the potential synergies of the MNC and utilise its dispersed assets subsidiaries must combine skills and knowledge in collaborative and concerted effort. The *dual*, or *multiple embeddedness* of subsidiaries (Meyer et al., 2010, Figueiredo, 2011), how they engage in collaborative efforts in creating ‘coalescent knowledge’ together with the parent and/or peer subsidiaries (Reilly et al., 2012) therefore becomes a highly contributory factor to both subsidiary and organizational innovation.

2.2 Initiative creation, opportunity recognition & innovation

In section (1) we addressed how a fundamental strategic objective of the MNC is to leverage the innovative and entrepreneurial potential of its dispersed assets (Bartlett and Ghoshal, 1989; Birkinshaw, 1997). Further, we discussed how subsidiary embeddedness and leveraging local external ties enables greater knowledge acquisition and opportunity recognition. As an additional contributory factor, subsidiary initiative is advanced as ‘a discrete, proactive undertaking that advances a new way for the corporation to use or expand its resources’ Birkinshaw (1997: 207). In the course of our literature searching we met considerable difficulties however in explicitly corroborating what constitutes a subsidiary initiative and what can be termed as an overarching entrepreneurial orientation as the two terms are often used interchangeably¹. Acknowledging that the two terms are not mutually exclusive and that initiative is ‘a troublesome and little-understood concept’ (Ambos et al., 2010) we now address the literature which explicitly refers to initiative in respect of the following definition.

We advance subsidiary initiative as a *proactive* undertaking that is best captured in terms of an opportunistic drive to build and extend upon existing capabilities and competencies. In addition to demonstrating value to the organisation, the development of capabilities through initiative taking may also serve a multitude of other purposes as subsidiaries look for new ways to exert influence and build bargaining power within the organisation (Mudambi and Navarra, 2004). The development of new and novel products and ideas to penetrate new markets not only provides the subsidiary with an increasing scope to gain power and influence within the MNC but may also result in greater control over strategic resources (Bouquet and Birkinshaw, 2008). In addition to heightened resource accessibility, the pursuit of successful local initiatives is also evidenced by greater subsidiary autonomy and control

over operations (Burgelman, 1983; Rugman and Verbeke, 2001). We trace how the breath of both subsidiary autonomy and controlling mechanisms are linked to flexibility in operations and ultimately to an innovative output in greater detail in the subsequent section (3).

As a path dependent process initiative taking incorporates both ‘the idiosyncratic elements of the institutional context in which the subsidiary is located and also the past contributions of its local managers’ (Bouquet and Birkinshaw, 2008: 490). In this sense initiative taking is largely a continuous process, differing from innovation in its purest Schumpeterian form, and bearing more similarity to the focused and continuous incremental innovation discussed by Bessant and colleagues (1994, 2001). This incremental approach to innovation encompasses problem solving, active participation and linking improvement activities to ‘strategic goals and mechanisms for transforming learning across the organisation’ (Bessant et al., 2001: 71). As incremental improvements and adaptations occur with greater frequency than radical, paradigm shifting change we suggest that not only is this form of innovation more accessible to a broader range of subsidiaries but it will also have a wider applicability to practice. We are not alluding to more radical forms of change but address them in the subsequent section (2.3) as an entrepreneurial orientation that incorporates risk as an intrinsic factor.

2.3 Subsidiary entrepreneurship, embracing risk and innovation

Along with innovativeness an entrepreneurial orientation is built upon pro-activeness and risk-taking (Covin and Slevin, 1989, 1991; Covin and Miles, 1999; Lumpkin and Dess, 1996). Whilst initiative taking is focused at utilising (existing) resources in a proactive way and solving contingencies; ‘an entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations’ Miller (1983: 771). We now focus on *risk* as a distinguishing feature of both an entrepreneurial orientation and subsidiary based innovation.

The extent to which managers are inclined to take risk, embrace uncertainty and overcome organisational myopia undoubtedly has an impact upon innovative output. Traditional approaches to understanding risk in the MNC observed the role of corporate governance structures (Williamson, 1981) in using a dyadic principal-agent lens to explain controlling mechanisms in the MNC. This conceptualisation limits the scope for opportunity development however if we are to contend that headquarters act rationally and are risk adverse (Eisenhardt, 1989; Grossman and Hart, 1986; Jensen and Meckling, 1976).

In accordance, a critique of the principal-agent perspective addresses how ‘the simplicity of the dichotomous choice between monitoring and incentives posited by agency theory prevents it from addressing more complex combinations of control types’ (O’Donnell, 2000: 541). It is arguably through addressing these complex control types, and through acknowledging the move towards a more profound involvement by the subsidiary unit; that a more interdependent, rather than dependent position of the subsidiary can be examined (Pearce, 1999). The advance of the federative view of the MNC sought to capture the emergent shift towards more interdependent subsidiaries as assets were increasingly spread

across the MNC, controlling mechanisms were becoming less centralized and subsidiaries were allowed to operate under a greater degree of autonomy (Andersson et al., 2007; Bartlett and Ghoshal, 1989, Ghoshal and Bartlett, 1990). In conjunction with this change in the structural context of the MNC research began to identify how empowered subsidiaries leveraged their specific advantages and relative autonomy in a focused attempt to position the unit as a centre of excellence or as a dedicated hub for research and development (Andersson and Forsgren, 2000; Frost et al., 2002; Moore, 2001). A consensus upheld by several empirical studies attests to the positive relationship between the level of autonomy enjoyed by the subsidiary and its initiative and competency generation (Birkinshaw, 1997; Birkinshaw et al., 1998; Ghoshal and Bartlett, 1988) further suggesting that an MNC culture which allows subsidiaries greater freedom will also facilitate and encourage entrepreneurial behaviour.

3. Creating an environment conducive to innovation

Subsidiaries must strive not only to remain responsive to local markets, but must also adapt, innovate and find new ways of demonstrating value to the collective organisation. Birkinshaw (1997: 210) captures this dilemma, contending that; ‘creativity and innovation should be endemic to the national subsidiary as the driver of its strategy. The subsidiary has ongoing managerial responsibilities but at the same time it has the responsibility to respond to entrepreneurial opportunities as they arise’. Subsidiary managers, critically aware of the need to chase a sustainable future are also highly cognizant of this fact and of the inherent danger that to stand still is to be left behind. A growing parent actuated drive to respond to local opportunities whilst simultaneously building a capability base that is adaptive and innovative captures the dual role of the subsidiary. In addition to a dual role the subsidiary must also operate within a dual context encompassing both the structural context of the wider MNC and the behavioural context inherent and idiosyncratic to the subsidiary itself.

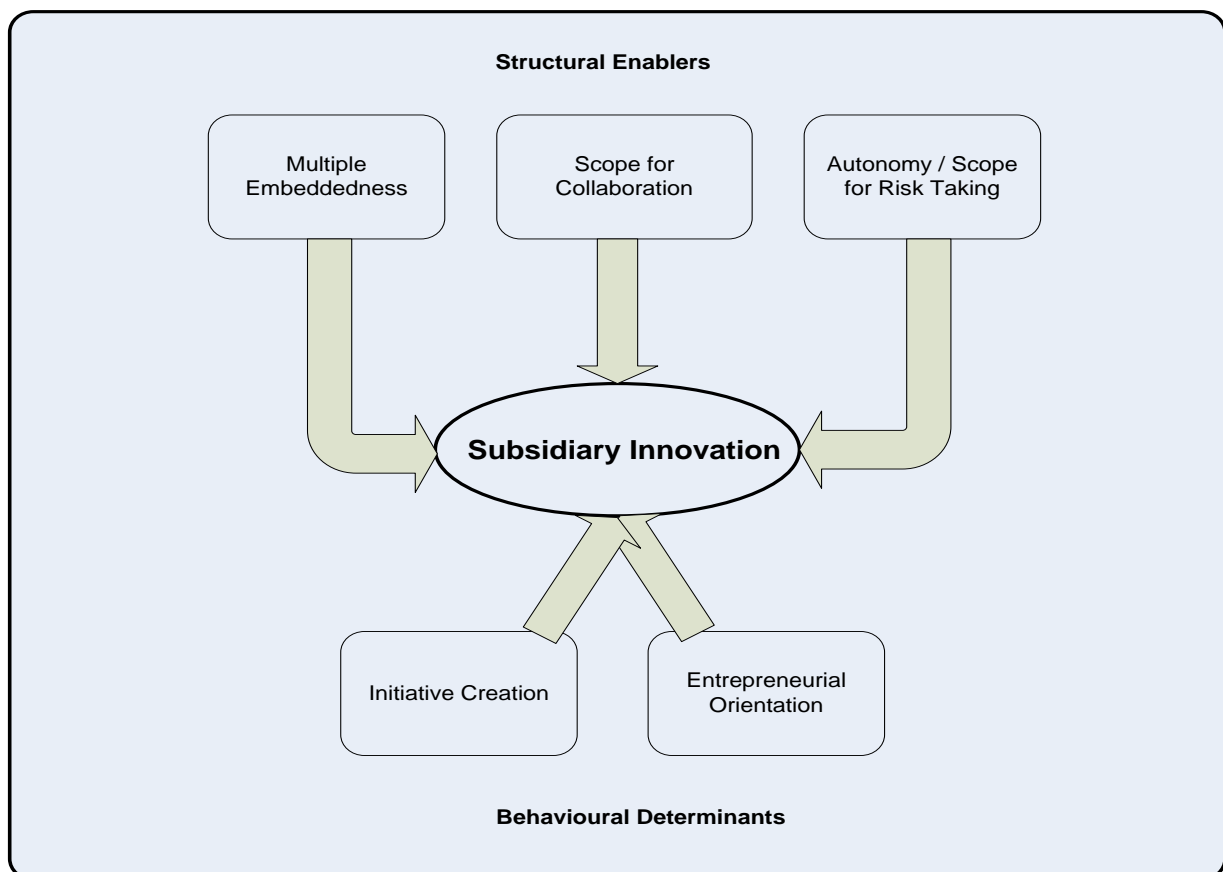
3.1 The Structural Context

Acknowledging the importance of the structural context in which the subsidiary operates within we propose three interrelated factors as conducive to enabling subsidiary innovation. The first of these factors, *multiple embeddedness* allows subsidiaries to be both responsive to local opportunities whilst also remaining aligned with the internal organisation. As a related factor, the *scope for collaboration* stresses the importance of inter-organisational learning, interdependencies created via developing combinative capabilities, and coalescent knowledge creation (Reilly et al., 2012). Finally we highlight the importance of risk, autonomy and flexibility of operations within a culture that values *real* innovation as opposed to discreet or conservative approaches to altering existing products, services or processes (Danneels, 2002; Hitt et al, 1997).

3.2 The Behavioural Context

At the behavioural level we look more at what happens internal to the subsidiary - highlighting the idiosyncratic behavioural attributes conducive to subsidiary innovation. In building upon the concepts developed in section (2) the first of these factors advanced is *subsidiary initiative* encompassing the proactive drive towards conceiving, assuming and implementing new ways in which the organisation can use or expand its resources (Birkinshaw, 1997). The second of these behavioural determinants *entrepreneurial orientation* captures not only a proactive drive but also a propensity to pursue exploratory and experimental trajectories in embracing change. The figure which follows (Fig. 1) advances both the structural enablers and behavioural determinants conducive to driving subsidiary based innovation, and at a wider level to supporting strategic renewal. In the subsequent section (4) we then highlight how transformations in both the capability base and structure of the modern MNC may now undermine the now the applicability of this existing, traditional model. Further, we critically evaluate how these changes at a macro level can potentially reduce not only subsidiary managers' scope to add value and innovate but also the capacity of the organisation as a whole to adapt and survive.

Fig. 1 A Traditional Model of Subsidiary Based Innovation



4. Competence destroying change in the MNC?

A wide ranging subsidiary based literature has examined not only the integral role of innovative and competence creating subsidiaries from within, but by extension also provides us with a greater understanding of how organisations as a whole continuously adapt, evolve and survive. In capturing these key tenets the model in section (3) illustrates both the structural and behavioural contexts conducive to competence creation and innovation in the subsidiary. As addressed in section (2.2) subsidiary based initiatives and innovations predominately follow an incremental path, building upon existing knowledge and the lessons made whilst also linking improvements to the wider goals of the organisation (Bessant, 2001). As new institutional forms, structures and configurations emerge however, fundamental changes in the MNC arguably bear more similarity to discontinuous transformation than the incremental, problem solving approach of constant incremental innovation. Discontinuous transformation, in contrast to an evolutionary approach, involves breaking path dependencies and ‘replacing important parts of a company and it’s strategy, and affect the long term prospects of the firm’ (Agarwal and Helfat, 2009: 283). We now highlight how this radical approach to transformation raises some pertinent questions as to how strategic renewal and competence creation is being managed within the modern MNC.

Global organisations cognizant of a need for greater resource utilisation and efficiency have learned to ‘fine slice’ activities, locating each ‘stage’ of the value chain in its optimal location (Buckley, 2011). In turn, within these competitive environments location based advantages are quickly eroding as global value chains become increasingly disjointed, leading to more focused, narrow and specialized subsidiary roles (Buckley, 2009). We argue that for new competence creation the implications of these changes may in fact be counterintuitive and myopic; reflecting one step forward in the short term but signalling disproportionate competence destroying change in the longer term. A narrower focus may facilitate subsidiary specialization but it also curbs the potential to build the capabilities conducive to collaborative innovation and interorganisational learning; particularly when knowledge cannot be absorbed effectively (Cohen and Levinthal, 1990; Lane and Lubatkin, 1998). As innovation at the subsidiary level rests upon an ability to combine and augment access to local knowledge with the competencies of the wider organisation (Andersson et al. 2001; Ghoshal & Bartlett, 1988) these fundamental changes in the structure of the modern MNC will likely pose a very real threat in terms of subsidiary scope to pursue innovative paths in the future. Further, with a reduced scope for collaboration the innovations that do result are likely to be patchy and developed without an overall coherence (Francis and Bessant, 2005). We now highlight how reform in the structure of the MNC, coupled with the reconfiguring of capabilities and resources across the network may create significant barriers to subsidiary driven innovation.

4.1 Structural Reform

4.1.1 Increased monitoring of operations

Innovation at an organisational level is driven by risk taking, flexibility and experimentation (March, 1991). At the subsidiary level it is dependent as much on the exploration of new opportunities as it is on enjoying a relative degree of freedom and local autonomy (Ghoshal and Bartlett, 1988). As we move more towards a commoditised and transactional view of the MNC networks of activities are characterised by greater coordination at the vertical level (Buckley, 2009), raising significant concerns about monitoring of subsidiary activities². Monitoring is intended to prevent, or at least curb, clandestine or unexpected behaviour (Eisenhardt, 1989). Whilst this creates greater transparency of operations, tighter controls and monitoring imposed by the parent may, in effect, also prevent the parent from realizing the well documented benefits of strategically independent subsidiaries, notably; ‘learning from local systems of innovation, using and integrating local resources and competencies, and generally introducing a heightened level of dynamism into the parent MNC (Mudambi and Navarra, 2004: 387).

As headquarters adopt and utilise more sophisticated ICT to monitor and control subsidiary operations the potential for subsidiary experimentation and initiative taking becomes increasingly challenging (Yamin and Sinkovics, 2007; Scott and Gibbons, 2011). Discretion to pursue local opportunities is also reduced without significant flexibility of operations in much the same way as increased centralisation serves to impede innovation (Ghoshal and Bartlett, 1989). Whilst scholars over the last number of decades have discussed headquarters granting increasingly more freedom to independent subsidiaries to benefit from local learning (Andersson et al., 2007; Gupta and Govindarajan, 1991) we argue recent structural trends in the MNC may now reflect a very different reality where the exploitation of short term certainties takes precedence over the exploration of new opportunities (Martens et al., 2008).

4.1.2 Reduced capacity to build combinative capabilities

Interaction and embeddedness are fundamental characteristics of the MNC as an inter-organisational network (Ghoshal and Bartlett, 1990). Within this network view of the MNC potential synergies across the network arise from the leveraging of knowledge and competencies through collaborative effort and creating combinative capabilities (Kogut and Zander, 1992). In accordance, a significant body of literature and research focusing exclusively on intra-organisational knowledge flows attests to the weight of knowledge accessibility as a driver of performance within the MNC (Ambos et al., 2006; Gupta and Govindarajan, 2000; Monteiro et al., 2008; Mudambi and Navarra, 2004; Tsai, 2001). As addressed in (2.1) the absorptive capacity literature is particularly useful in indicating how an ability to recognise the value of new, external knowledge and to then assimilate this knowledge is conducive to both new competence development and at a wider level to organisational innovation (Cohen and Levinthal, 1990; Lane and Lubatkin, 1998; Tsai, 2001). Similarly, inter-organisational learning and combinative capabilities enables subsidiaries to

leverage locally based knowledge to generate initiatives or innovations which can subsequently be exploited across the organisation (Kogut and Zander, 1992; Scott and Gibbons, 2011). In recognising that knowledge may have little value in isolation and needs to be augmented Kogut and Zander (1992:392) outline the benefits of collaboration as the innovation search becomes localized incorporating technologies which are *proximate*, can be more easily acquired, and 'do not require a change in the organization's recipes of organizing research'. Again, this points to an incremental approach to innovation as the organisations existing 'recipes' for development remain intact whilst a continuous level of improvement is facilitated. Through mutual learning, inter-unit cooperation and the creation of new knowledge (Tsai, 2001) the subsidiary and/or the parent can then identify where it can utilise these combinative capabilities to provide the greatest value to the organisation.

But what if the MNC as an inter-organisational network no longer captures an accurate picture of the environments subsidiaries must compete and engage in, and if increased internal competition within the MNC causes subsidiaries to become proprietorial about their specialist knowledge? The resource dependency literature which examines both the criticality of resources and the magnitude of exchange between actors (Pfeffer and Salancik, 1978) addresses growing power structures in play in the MNC and how the internal environments in which subsidiaries engage in can become increasingly competitive. More recently, this can be attributed to subsidiaries challenging for resources, rent seeking behaviour and inter-firm rivalry (Bouquet and Birkinshaw, 2008; Mudambi and Navarra, 2004). Increasing power plays within the MNC, arguably an *ex ante* result of increased outsourcing, indicates headquarters are becoming less reliant on the skills and competencies of specific subsidiary units. As a result, subsidiaries wanting to protect their own position may become less willing to share or integrate knowledge actuating a shift from internal collaboration to internal competition (Reilly et al., 2012). As the ability to assimilate and use knowledge is dependent on both the receiving and diffusing units and in particular on the relationship between them (Lane and Lubatkin, 1998) this may then erode one of the critical benefits of the MNC organizational structure (Ghoshal and Bartlett, 1988). Ultimately it may significantly hinder the potential of creating and developing combinative capabilities within the MNC's nexus of innovation.

4.2 Curbing Innovative potential in Subsidiary Behaviour

The emergence of narrower, more specialized roles also suggests that subsidiaries run the risk of becoming isolated, or worse still that subsidiary management adopt a *silo* mentality. In examining the implications of isolation on subsidiary performance Monteiro et al., (2008) describe how the 'liability of internal isolation' may be symptomatic of more fundamental problems of knowledge sharing within the modern MNC. Without access to interorganisational knowledge any initiatives which are developed will likely be focused at the local level and without reciprocity of knowledge transfer between subsidiaries the relationships which could be used to foster collaboration remain undeveloped.

4.2.1 Narrower subsidiary roles with a specialized focus

As developing innovative capabilities in the subsidiary often stems from leveraging local opportunities in a concerted effort (Andersson and Holm, 2010; Kogut and Zander, 1992) it becomes increasingly apparent that a narrower subsidiary role will dictate a much more confined space when it comes to sensing and seizing those opportunities. A significant body of literature attests to the unique capacity of subsidiaries to leverage the benefits of multiple embeddedness by diffusing knowledge and competence creation to the wider organisation (Andersson et al., 2001; Davis and Meyer, 2004; Meyer, Mudambi and Narula, 2010). Yet within a narrow role the opportunity to augment knowledge and contribute collectively will likely deteriorate due to a more specialized subsidiary focus. A reduced scope of operations may also indicate that knowledge of other operations within the network grows weaker with the consequence that new knowledge cannot be absorbed affectively (Lane and Lubatkin, 1998) and individual subsidiaries become less aware of their role within the bigger picture (Scott and Gibbons, 2011).

We draw on Barringer and Bluedorns (1999) study of corporate entrepreneurship in making this point. In what we believe to be analogous to subsidiaries at an organisation level, the authors define an organisations locus of planning as the depth of involvement by employees in the firms' strategic planning of activities. A deep locus of planning is characterised by a high level of interaction encompassing virtually all hierarchical levels in the firm, whereas a shallow locus typically encompasses exclusive planning processes with input from only those at the top. The disaggregation of value chain activities into disjointed parts, in affect, has the same impact as a shallow locus of planning; in that it offers little scope for flexibility or the exploration of new opportunities. By reducing the scope of subsidiaries to see the broader needs of the organisation they may instead become overly focused on their own local objectives, and as a consequence become marginal and less visible to the collective organisation. The ability to align with wider strategic goals and objectives will thus deteriorate without a coherent understanding of where the organisation is going and secondly, without the potential to create new knowledge with the parent or other subsidiaries.

5. Discussion

In the introduction, section (1), we addressed how the survival of the organisation as a whole is contingent upon an ability to adapt, shift and innovate (Hitt et al. 1997; Teece and Pisano, 1994; Verona and Ravasi, 2003). Further to this we identified how leveraging autonomy and the gains of initiative taking is credited with allowing subsidiaries the strategic independence necessary to pursue more explorative and innovative trajectories. As the capacity and scope of subsidiaries to gain the freedom and flexibility conducive to creating innovations becomes increasingly challenging this raises some important questions not just for subsidiary based innovation but at a larger level to how organisations can adapt, and to what extent is the synergistic and contributory potential of subsidiaries is being (under)utilized?

The disaggregation of global value chains and the resulting narrower subsidiary roles that are emerging are likely to have a significant impact on a subsidiaries ability to augment

knowledge and contribute collectively to the organisation. Increasingly sophisticated ICT has also effectively diminished subsidiary discretion by enhancing headquarters ability to orchestrate its value chain activities, both within the organisation and with external actors (Buckley, 2009). In addition, a growing tendency of headquarters to outsource and/or relocate activities to lower cost locations reflects a worrying shift for subsidiary based innovation as the focus moves from responsiveness at a local level towards a preference for short-term exploitation efforts (Martens 2008). Finally the capacity of subsidiaries to build combinative capabilities and thus leverage the synergies of the MNC becomes progressively challenging as the inter-organizational, knowledge sharing perspective of the MNC is replaced by a reality of disjointed value chain activities and greater internal competition.

5.1 Implications for Practice

As activities are fine sliced across the globe the borders between headquarters and its network of dispersed assets becomes more blurred and permeable. Recognising that headquarters cannot rely exclusively on their own research or innovative capacity a recent stream of research has begun to recognise how some MNC's locate 'listening post' subsidiaries which are tasked with receiving, filtering and diffusing knowledge back to the parent (Meyer, et al., 2010; Mudambi and Navarra, 2004). The contribution of these subsidiaries is then realised through leveraging gainful insights via reverse knowledge flows back to the parent. We discussed in section (4.2) we how subsidiary contribution becomes a more focused and concentrated practice made all the more acute by narrowly defined roles. As subsidiary contribution becomes more specialised this creates a greater onus on the parent to orchestrate and unify value chain activities and to then gauge where the greatest scope for value creation lies before integrating and assimilating this knowledge in the development of organisational innovations. If we are to contend that it is not organisations which are competing against one another but their value chains then an ability to combine and augment value chain activities in a systematic and inclusive manner arguably confers upon an organisation the ability to simultaneously leverage both the transactional benefits of a global factory structure whilst not losing sight of subsidiary specific advantages and innovative input. The onus therefore shifts largely to HQ or regional headquarters who are then tasked with merging activities in a 'unified virtual business entity' Tan et al., (2002: 615). The adoption of performance indicators which include 'knowledge objects', developed and documented by subsidiary units may help in shaping a level of knowledge diffusion conducive to continued and focused renewal within the organisation. Where knowledge is 'sticky' (Szulanski, 1996) and where feasible, it should be developed and maintained on site, ensuring not only that subsidiary management realise the benefits of locally created knowledge but also in ensuring new knowledge is not lost.

For subsidiaries wanting to differentiate how they create value the solutions are less easily prescribed. Without a dedicated R&D mandate, the scope to innovate or contribute to the collective organisation becomes increasingly challenging. Worse still, efforts which are misaligned from corporate strategy may be seen as wasteful of organisational resources or as empire building. Further, as more transactional approaches to benchmarking emerge, cost and responsiveness increasingly take precedence over initiative taking in the subsidiary. A

problematic factor to measure, innovation should none the less be endemic to the local subsidiary in their communication with headquarters. In positioning the subsidiary as a 'listening post' an active approach to knowledge integration and diffusion combined with greater alignment with headquarters may facilitate greater utilization of dispersed organisational resources.

5.2 Future Directions for Research

In addressing the collective developments in section (3) we highlight a number of avenues which would benefit from further empirical research. Firstly, how do subsidiaries contribute within a marginal role and what does this mean for subsidiary based innovation? Secondly, does a specialized focus dictate that a subsidiaries scope to innovate is confined to a composite part of a value chain? Finally, and in building upon the last question, if innovation is confined to a value chain activity then is the subsidiary manger as the key instigator of subsidiary development (Roth and Morrisson, 1990; Birkinshaw, 1996, 1997; Birkinshaw and Hood, 1998; Delany, 2000) still relevant as the principal unit of analysis?, or should research also incorporate these new complexities and behavioural shifts by introducing a greater focus on value chain activities when exploring subsidiary based innovations?

Footnotes:

¹Birkinshaw (1997: 207) contends; 'an initiative is essentially an entrepreneurial process, beginning with the identification of an opportunity and culminating in the commitment of resources to that opportunity'. This ambiguity is somewhat addressed in later revisions: 'it should be equally clear that they are not the same thing. As defined here, initiatives are discrete cases of entrepreneurship; entrepreneurial culture is an organizational context in which certain behaviors, including initiative, are fostered' (Birkinshaw et al., 1998). Ambos et al. (2010: 2) also address how entrepreneurial undertakings and subsidiary capacity to tap into new opportunities 'have been brought together under the label subsidiary initiatives'.

²For clarity we distinguish between monitoring and attention. Attention from headquarters need not be negative if it builds up greater visibility of the subsidiary within the corporate network (Ambos et al., 2010; Bouquet and Birkinshaw, 2008; Ocasio, 1997). In addition, despite greater attention possibly leading to a decrease in the subsidiary's independence this potentially negative implication may be counteracted if increased visibility allows the subsidiary to extend its influence vis-à-vis other peer subsidiaries; opening potential avenues for collaborative opportunities (Ambos et al., 2010).

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